IN THE CLAIMS:

1. (Original) A transducer for converting electrical energy into mechanical energy, the transducer comprising:

a top portion of a housing having a circumference and a height adapted to flex in a controlled manner;

a bottom portion of a housing having a circumference and a depth adapted to be rigid and stationary with respect to the top and supporting the top along the circumference of the top and bottom portions when the top and bottom portions are placed in arrangement to define an enclosure; and

a conductive coil positioned between the top and bottom portions of the housing, to receive electrical signals and cause elastic deflections of the top in response to currents in the conductive coil caused by the electrical signals.

2. (Original) The transducer of claim 1 wherein the top portion has a six sided hexagonal shape with a flat top.

3. (Original) The transducer of claim 2 wherein the top portion has a circular aperture in the flat top.

4. (Original) The transducer of claim 2 further comprising a top cap that fits over the circular aperture in the top portion.

5. (Original) The transducer of claim 2 wherein the top portion has a ring in the flat top adapted to control the flexing of the top portion.

6. (Original) The transducer of claim 2 wherein the hexagonal shaped top portion has sides that are at an angle to the flat top.

7. (Original) The transducer of claim 6 wherein the sides of the hexagonal shaped top has a perpendicular section at each apex of the six side sections.

8. (Original) The transducer of claim 4 wherein the cap is glued to the top portion.

9. (Original) The transducer of claim 8 wherein the cap has a ridge which fits into a groove circumscribing the aperture in the top portion.

10. (Original) The transducer of claim 4 wherein the cap has a bolt extending through the circumferential center of the cap with its threaded shaft outward and fastened to the cap.

11. (Original) The transducer of claim 4 wherein the cap has a plurality of ridges radiating from the center.

12. (Original) The transducer of claim 1 wherein the bottom portion is circular and has a flat bottom.

13. (Original) The transducer of claim 12 wherein the bottom portion further comprises a plurality of fins attached to the flat bottom.

14. (Original) The transducer of claim 1 wherein the conductive coil is attached to the bottom portion of the housing.

15. (Currently Amended) The transducer of claim 14 wherein the conductive coil ~~comprising~~ comprises:

a bottom plate capable of being physically attached to the inside of the housing bottom portion, the bottom plate ~~having~~ comprising a recess;

a magnet adapted to fit within the recess of the bottom plate;

~~a top plate;~~

a top plate ~~with~~ comprising a circular aperture through ~~it's~~ a symmetrical center, the top plate capable of being attached to the bottom plate;

a pole cap adapted to fit within the circular aperture in the top plate; and

a voice coil ~~having~~ comprising a first end and second end, and comprising a diameter smaller than the circular aperture of the top plate, the voice coil adapted to oscillate with the second end in ~~the~~ a space between the pole cap and the circular aperture of the top plate.

16. (Original) The transducer of claim 15 further comprising a spider attached to the voice coil and the top plate, for maintaining the voice coil aligned between the pole cap and the circular aperture of the top plate.

17. (Original) The transducer of claim 16 wherein the voice coil has apertures therein for dissipating heat generated by the conductive coil.

18. (Currently Amended) The transducer of claim 16 wherein said first end of the voice coil is capable of being attached to the top portion of the housing.

19. (Original) The transducer of claim 18 wherein the top portion of the housing has a circular aperture, and the first end of the voice coil is attached to the top portion of the housing at the circular aperture.

20. (Original) The transducer of claim 19 further comprising a cap that fits over the circular aperture in the top portion.

21. (Original) The transducer of claim 20 wherein the cap is glued to the top portion.